

MAGNETIC RESONANCE in CHEMISTRY

1991

Volume 29

MRCHEG 29(1-12)1-1240 plus a special issue (1991)

ISSN 0749-1581

John Wiley & Sons Ltd

MAGNETIC RESONANCE in CHEMISTRY

EDITOR-IN-CHIEF

Dr P. M. E. LEWIS

*John Wiley & Sons Ltd, Baffins Lane,
Chichester PO19 1UD, UK*

REGIONAL EDITORS

North America

Professor M. BARFIELD

*Department of Chemistry,
University of Arizona,
Tucson, Arizona 85721*

Dr S. L. MANATT

*Jet Propulsion Laboratory,
Mail Station 183/601,
California Institute of Technology,
Pasadena, California 91109*

Europe

Professor G. HABERMEHL

*Chemisches Institut der Tierärztlichen
Hochschule Hannover, Bischofsholer Damm 15,
3000 Hannover 1, Germany*

Professor M. L. MARTIN

*Chimie Organique Physique,
Université de Nantes,
2 rue de la Houssinière,
44072 Nantes, France*

Professor W. von PHILIPSBORN

*Organisch-Chemisches Institut,
Universität Zürich-Irchel,
Winterthurerstrasse 190,
CH-8057 Zürich, Switzerland*

Australasia

Professor S. STERNHELL

*Department of Organic Chemistry,
University of Sydney, NSW 2006, Australia*

Asia

Professor Y. TAKEUCHI

*Department of Chemistry,
College of Arts and Sciences,
The University of Tokyo, Komaba,
Meguro-ku, Tokyo 153*

Prof. R. J. Abraham

University of Liverpool

Dr J. W. Akitt

University of Leeds

Prof. F. A. L. Anet

University of California

Dr. W. Bremser

*ROW, Postfach 1464, 5047
Wesseling*

Prof. R. G. Bryant

University of Rochester

Dr A. M. Chippendale

ICI Specialties, Manchester

Prof. P. Diehl

University of Basel

Dr C. M. Dobson

University of Oxford

Prof. E. L. Eliel

University of North Carolina

Prof. P. D. Ellis

University of South Carolina

Prof. S. Fujiwara

Kanagawa University

Prof. C. A. Fyfe

University of Guelph

Prof. F. Gerson

University of Basel

Prof. P. Granger

Institut de chimie, Strasbourg

Prof. Dr H. Günther

University of Siegen

Prof R. K. Harris

University of Durham

Dr H. J. Jakobsen

University of Aarhus

Prof. A. R. Katritzky

University of Florida

Prof. Dr H. Kessler

*Technische Universität,
München, Garching*

ADVISORY BOARD

Prof. Dr R. Kosfeld

Universität Duisberg

Prof. J. B. Lambert

Northwestern University, Illinois

Prof. Dr A. E. Merbach

Université de Lausanne

Prof. I. Morishima

Kyoto University

Dr G. A. Morris

University of Manchester

Prof. M. Ōki

Okayama University of Science

Prof. M. Ptak

*Centre de Biophysique Moléculaire,
Orléans*

Prof. Dr P. S. Pregosin

*Eidgenössische Technische
Hochschule, Zürich*

Prof. W. F. Reynolds

University of Toronto, Ontario

Prof. J. D. Roberts

California Institute of Technology

Dr J. K. M. Sanders

University of Cambridge

Dr J. Schaefer

Washington University, St. Louis

Dr I. C. P. Smith

National Research Council, Ottawa

Prof. J. A. S. Smith

Queen Elizabeth College, London

Prof. W. B. Smith

Texas Christian University

Prof. J. B. Stothers

University of Western Ontario

Prof. B. D. Sykes

University of Alberta

Prof. F. Taddei

University of Modena

Copyright © 1991 by John Wiley & Sons, Ltd.

COPYING OF ARTICLES

The code and the copyright notice appearing at the bottom of the first page of an article in this journal indicates the copyright owner's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients, on the condition that the copier pay for copying beyond that permitted by Sections 107 or 108 of the U.S. Copyright Law. The per-copy fee for each article appears after the dollar sign, and is to be paid through the Copyright Clearance Center Inc. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Such permission requests, or other inquiries, should be addressed to the publisher.

Contents of Volume 29

NUMBER 1 JANUARY 1991

Editorial P. M. E. LEWIS	1
¹H and ¹³C Nuclear Magnetic Resonance Studies of Ethenyl-Substituted Benzenoid Aromatic Compounds A. R. KATRITZKY, G. J. HITCHINGS, R. W. KING AND D. W. ZHU	2
Complete ¹H and ¹³C NMR Spectral Assignment of Some Polynitropolycyclic Cage Molecules by 2D NMR Spectroscopy T. AXENROD, B. LIANG AND P. R. DAVE	9
Complete Proton and Carbon Spectral Assignments of Acrihellin and Hellebrigenin A. MÜLLER, G. NONNENMACHER, B. KUTSCHER AND J. ENGEL	18
Detection of Long-Range Couplings in Oligomers and Evaluation of Coupling Constants in Polymers. Application of the 1D COSY Technique S. UHRÍNOVÁ, D. UHRÍN, T. LIPTAJ AND GY. BATTÁ	22
¹H NMR Investigation of Selected Heptafulvenes P. BÖNZLI AND M. NEUENSCHWANDER	29
Kinetics of Skeletal Rearrangement of H₂FeP[CH₂CH₂CH₂P(CH₃)₂]₃ by an Inversion-Transfer-Recovery NMR Method L. D. FIELD, N. BAMPOS AND B. A. MESSERLE	36
¹H and ¹³C NMR Studies of Isomerism in Hydroxamic Acids D. A. BROWN, W. K. GLASS, R. MAGESWARAN AND S. A. MOHAMMED	40
Assignment of Quaternary Carbon Resonances in Lambertellin by Soft Heteronuclear Multiple Bond Correlation M. A. KENIRY AND G. A. POULTON	46
Sensitivity of the H/D Isotope Shifts of the ¹³C Nuclear Shielding to the Nitrogen Lone Pair Delocalization in Anilines and Acetanilides M. S. MORALES-RIOS AND P. JOSEPH-NATHAN	49
Long-Range Deuterium Isotope Effects on ¹³C NMR Shifts of Intramolecularly Hydrogen-Bonded 9-Hydroxyphenalen-1-ones C. ENGDAHL, A. GOGOLL AND U. EDLUND	54
¹H NMR Structural Analysis of Isomeric Tetrazole-Substituted Spirostan Steroids: Shielding Effects and Conformational Study C. J. L. SILWOOD AND D. B. DAVIES	63
Selenium-Selenium Bond Order in Diselenides. ⁷⁷Se-⁷⁷Se and ⁷⁷Se-¹³C Coupling Constants and ⁷⁷Se Chemical Shifts of Symmetrical and Unsymmetrical Diselenides W. GOMBLER	73
Influence of the Phosphorus Lone Pair on Coupling Constants in Vinylphosphines T. N. MITCHELL, K. HEESCHE-WAGNER AND H.-J. BELT	78
Short Communication Long Range Heteronuclear Correlation 2D NMR by MLEV-16 Isotropic Mixing G. A. MORRIS AND A. GIBBS	83

Reference Data

- The Complete ^1H and ^{13}C Assignment of Some Cubane Derivatives by 2D NMR Spectroscopy** 88
T. AXENROD, B. LIANG, A. BASHIR-HASHEMI, P. R. DAVE AND D. S. REDDY
- NUMBER 2 FEBRUARY 1991
- Conformation in Solution of Four 2,4,5,7-Tetramethyloctane-4,5-dicarboxylates: Molecular Mechanics and NMR Studies** 95
K. A. HOLLAND, I. D. RAE AND J. A. WEIGOLD
- Structural Elucidation of Germine Esters Isolated from *Veratrum nigrum* L. Total Assignment of ^1H and ^{13}C Nuclear Magnetic Resonances by Two-Dimensional NMR Techniques** 100
X. HAN, P. GROSSMANN AND H. RUEGGER
- Structure of Two Stereoisomers of $\text{Pt}(\text{trans-MeO}_2\text{CCH}=\text{CHCO}_2\text{Me})_2[\text{P}(\text{cyclohexyl})_3]$: Complete Assignment of the 11 Non-Equivalent Tricyclohexylphosphine Protons Using DQF-COSY and ^{13}C , ^1H Two-Dimensional Methods** 113
H. RUEGGER
- ^{195}Pt and ^1H NMR Studies of Platinum(II) Complexes with Ethylenediamine Derivatives** 120
F. D. ROCHON AND A. MORNEAU
- Aza Crown Ethers. ^{13}C and ^1H NMR Studies of Ring Conformations and Stereochemically Dependent Shifts in *N*-Substituted Dibenzodiaza-18-crown-6 Ethers and a Nine-Membered Analog** 127
G. W. BUCHANAN AND D. J. LANDRY
- γ_{gauche} Effects in the ^1H and ^{13}C NMR Spectra of Steroids. II** 133
P. E. HAMMANN, H. KLUGE AND G. G. HABERMEHL
- ^1H NMR and Molecular Mechanics Studies of Epimeric Ethyl Esters of 20(*R,S*)-Hydroxy-23-norcholanoic Acids** 137
M. S. MAIER, A. M. SELDES AND E. G. GROS
- Investigations Utilizing the ^{18}O Isotope Shift in ^{13}C Nuclear Magnetic Resonance Spectroscopy 1. Correlation with ^{17}O NMR Chemical Shifts** 143
J. M. RISLEY
- Conjugation of Spirocyclopropane with the Carbonyl Group. Conformational Analysis of Spiro-[cyclopropane-1,2'-steroids]** 148
U. R. DESAI AND G. K. TRIVEDI
- ^{17}O NMR Spectroscopic Study of Substituted 9-Fluorenones** 152
D. W. BOYKIN AND B. NOWAK-WYDRA
- Determination of Dynamic Parameters in Amino Acids from ^{17}O NMR Line Width Measurements** 156
J. TRITT-GOC AND D. FIAT
- Analysis of Low-Resolution, Low-Field NMR Relaxation Data with the Padé-Laplace Method** 164
C. TELLIER, M. GUILLOU-CHARPIN, D. LE BOTLAN AND F. PELISSOLO
- An NMR Study of the Hydroxylamine-Induced Denitration of Nitrocellulose, Nitroamylose and Some Model Monosaccharide Nitrate Esters** 168
S. BULUSU, T. AXENROD, B. LIANG AND L. YUAN
- EPR and ENDOR Investigations of Chrysazin- and Aclacynomycin A Semiquinones** 178
T. JULICH, H. B. STEGMANN, K. KROHN AND A. EICKHOFF
- Reference Data**
- Carbon-13 Spin-Lattice Relaxation of Acetylcholine and Analogues** 184
J. B. LAMBERT AND W. SCHILF

¹³C NMR of Some <i>trans</i>-Alkoxy-β-methyl-β-nitrostyrenes	188
B. A. DAWSON, A. W. BY AND H. W. AVDOVICH	
¹³C NMR Spectra of Multifunctional Bile Acid Derivatives	190
E. C. BLOSSEY, W. T. FORD AND M. PERIYASAMY	
NUMBER 3 MARCH 1991	
2D NOESY Studies on [Pd(η^3-C₁₀H₁₅){(R)(+)-BINAP}]⁺ Defining the Relative Spatial Orientation of the Phenyl and π-Allyl Moieties	197
H. RUEGGER, R. W. KUNZ, C. J. AMMANN AND P. S. PREGOSIN	
Application of 2D EXSY NMR Spectroscopy to the Study of the Dynamic Behaviour of Aroyl-cyanoketene-<i>S,S</i>-dimethylacetals	204
G. FISCHER AND E. KLEINPETER	
Two-Dimensional NMR Study of Eledoisin	207
T.-H. YANG, T.-Y. CHANG AND C. YU	
Study of the Distribution of the π-Electrons in Push-Pull Alkenes by ¹H and ¹³C NMR Spectroscopy	212
G. FISCHER, W.-D. RUDORF AND E. KLEINPETER	
Dynamic NMR Study of the Electronic State of Heteroaromatics IX—π-Electron Deficiency of Various Substituted Thiazinethiones, Thiazinium Salts and Analogous Pyrimidines by Means of Barriers to Rotation About Exocyclic Partial C,N Double Bonds	223
E. KLEINPETER, W. SCHROTH AND K. PIHLAJA	
Isotope Effects on ³¹P Nuclear Shielding in Thiophosphites	231
M. C. DEMARCO, L. LE GLEUT AND B. G. VAN HEMELRYCK	
Inverse Editing of Protons in Two-dimensional Homonuclear and Heteronuclear Relayed COSY Spectra	238
U. WOLLBORN AND D. LEIBFRITZ	
NMR Spectra and Conformational Analysis of Substituted 2,3-Dihydro[1,5]benzoxazepin-4(5<i>H</i>)-one Derivatives	244
J. OTT, M. HIEGEMANN AND H. DUDDECK	
⁷⁷Se, ¹³C and ¹H NMR Spectra of Phenylselenenylcycloalkanes, -cycloalkenes and Some of Their Selenoxides and ¹²⁵Te NMR of a Tellurium Analogue	248
H. DUDDECK, P. WAGNER AND A. BIALLAß	
Solid-state (CP-MAS) ²⁹Si-, ¹¹⁹Sn and ²⁰⁷Pb Nuclear Magnetic Resonance Study of Bis(pentamethylcyclopentadienyl)-silicon, -tin and -lead	260
B. WRACKMEYER, A. SEBALD AND L. H. MERWIN	
¹³C NMR Study of Derivatives of Dibenzobarrelene, Anthraquinone and Anthracene	264
R. SIECKMANN	
Multinuclear Magnetic Resonance Study of 1,3,3-Trimethylbicyclo[2.2.1]heptan-2-one (Fenchone) Oxime, Its Five Monochloro Derivatives and a Dehydrochlorination Product	267
E. KOLEHMAINEN, K. LAIHIA, J. KORVOLA, R. KAUPPINEN, P. MANTTARI AND K. RISSANEN	
Carbon-13 NMR Relaxation Study of the Overall and Internal Motions in Compounds Containing <i>n</i>-Octyl Chains	273
L. M. BULL, D. G. GILLIES, S. J. MATTHEWS, L. H. SUTCLIFFE AND A. J. WILLIAMS	
Reference Data	
¹H NMR Spectra of Some 5-Substituted-Thianthreniumyl Perchlorates	282
S. LOCHYNSKI, A. K. M. M. HOQUE, S. R. SHIN AND H. J. SHINE	
Carbon-13 NMR Spectral Investigation of Organosulfur Compounds. Substituent-Induced Chemical Shift (SCS) Effects in Acyclic Saturated Organosulfur Compounds	286
J. C. DYER AND S. A. EVANS, JR	

Spectral Reassignment and Structure Elucidation of Scopolamine Free Base Through Two-Dimensional NMR Techniques	291
C. SARAZIN, G. GOETHALS, J.-P. SEGUIN AND J.-N. BARBOTIN	
Determination of Polyaminocarboxylate Ligand Denticity by ^{13}C NMR Paramagnetic Line Broadening	301
K. POPOV, A. VENDILO AND N. DJATLOVA	
^{13}C, ^{13}C Coupling Constants of Isotopically Perturbed Molecular Systems: Cyclohexane, Benzene	304
V. A. ROZNYATOVSKY, N. M. SERGEYEV AND V. A. CHERTKOV	
Boron-11 Quadrupole Coupling Constants Deduced from Nuclear Relaxation of <i>closo</i>-Borane and Carborane Solutions	308
Y. L. PASCAL AND O. CONVERT	
An Explanation of Anomalous Artifact Intensity in Fully ^1H-^1H Decoupled Two-Dimensional Chemical Shift Correlation Spectroscopy	316
A. D. BAIN, I. W. BURTON, K. CARPENTER AND W. F. REYNOLDS	
^{13}C NMR Chemical Shift Assignments for Some <i>n</i>-Butylthiomethylene Ketones	323
A. GUERRERO, A. PARRILLA AND F. J. SANCHEZ	
Application of Two-Dimensional Shift Correlated NMR Techniques to the Structure Determination of an Unusual Marine Alkaloid, Isosaraine-2	327
G. CIMINO, A. FONTANA, A. MADAIO, G. SCOGNAMIGLIO AND E. TRIVELLONE	
Loss in Conformational Rigidity of Bradykinin on Replacement of the Phe-8 by Tyrosine	333
S. SRIVASTAVA, S. HARAM AND R. S. PHADKE	
Complete ^1H and ^{13}C NMR Assignments of Tallysomycin s_{10b} by Modern Two-Dimensional NMR Techniques	338
C. P. FREYDER AND L. G. MARZILLI	
Passive Observation of ^{15}N Satellites in Two-Dimensional Heteronuclear X-^1H Shift-Correlated Spectra via a Hahn Spin-Echo Extended Pulse Sequence	351
E. KUPCE AND B. WRACKMEYER	
The Double-DANTE Sequence Applied to NMR of Complex Carbohydrates	355
L. POPPE AND H. VAN HALBEEK	
Computer-Assisted Studies of Structure-Property Relationships Using Graph Invariants	362
Y. MIYASHITA, H. OHSAKO, T. OKUYAMA, S.-I. SASAKI AND M. RANDIC	
^1H and ^{13}C NMR Assignments of the Antitumor Macrolide Bryostatin 1	366
D. E. SCHAUFELBERGER, G. N. CHMURNY AND M. P. KOLECK	
Increased Resolution in Proton Detected Heteronuclear NMR Experiments by Folding in the Hetero-Dimension	375
P. SCHMIEDER, S. ZIMMER AND H. KESSLER	
Through-Bond Transmission of Polar Substituent Effects in the Bicyclo[2.2.2]octane Ring System as Monitored by ^{119}Sn NMR Chemical Shifts: a ^{119}Sn NMR Study of 10-Substituted 9-Tri-methylstannyltricycenes	381
W. ADCOCK AND V. S. IYER	
NMR Analysis of Fluorinated Corticosteroids Related to Fluocinonide: Detection of Long-Range ^1H-^{19}F Couplings using the Heteronuclear Equivalent of the COSY Experiment	387
D. W. HUGHES, A. D. BAIN AND V. J. ROBINSON	
Reference Data	
^{13}C NMR Study of <i>N</i>-Substituted 3-Azachalcones	398
M. SZAJDA	

Nitrogen-15 NMR Spectroscopy: Nitrogen-15 Chemical Shifts of 1,2-Diaminobenzenes and 1,8-Diaminonaphthalenes	400
M. P. SIBI	
Nitrogen-15 NMR Spectroscopy: Nitrogen-15 Chemical Shifts of Alkylthioureas	401
M. P. SIBI	
ESR Parameters of 5,5-Dimethylpyrrolidine 1-oxide (DMPO) Spin Adducts in the Photochemical Decomposition of Azo Compounds	402
V. CHOLVAD, K. SZABOVA, A. STASKO, O. NUYKEN AND B. VOIT	
NUMBER 5 MAY 1991	
Two-Dimensional ^1H NMR Spectroscopy of Aqueous Solutions with Elimination of the Water Resonance by Transverse Relaxation: Application to Assignment of the ^1H NMR Spectrum of Reduced Arginine Vasopressin	409
C. K. LARIVE AND D. L. RABENSTEIN	
Comparison of Rotational-Echo Double-Resonance and Double-Cross-Polarization NMR for Detection of Weak Heteronuclear Dipolar Coupling in Solids	418
A. M. CHRISTENSEN, J. SCHAEFER AND K. J. KRAMER	
Fluorine Deshielding in the Proximity of a Methyl Group. An Experimental and Theoretical Study	422
G. W. GRIBBLE, D. J. KEAVY, E. R. OLSON, I. D. RAE, A. STAFFA, T. E. HERR, M. B. FERRARO AND R. H. CONTRERAS	
^{19}F Solvent Shifts as Molecular Environmental Probes	433
S. SUNTIOINEN AND R. LAATIKAINEN	
Correlation of the Crystal Structure and Solid-State ^{13}C NMR Spectrum of Pyromellitic Dianhydride	440
R. A. WOLFE, W. T. SCHWARTZ AND F. J. DINAN	
Multinuclear Magnetic Resonance Study of Organometallic Substituted Enamines—Stereochemical Dependence of Vicinal ^{119}Sn-^{15}N Spin-Spin Couplings	444
E. KUPCE, B. WRACKMEYER AND E. LUKEVICS	
Liquid-Phase Stereochemistry of Cationic $[\text{Rh-bisphosphine-diene}]^+$ and Neutral $[\text{Rh-bisphosphine-diene-Cl}]$ Complexes. ^1H, ^{31}P and ^{13}C NMR and Molecular Mechanics Study	449
G. SZALONTAI, P. SANDOR AND J. BAKOS	
Molecular Modelling, NOED and Spin-Lattice Relaxation Study of the Stereochemistry of Some Terpenoids	459
N. QING, L. D. COLEBROOK AND F. COMMODARI	
NMR Examination of Tricyclo[4.2.0.01,3]octane	465
W. B. SMITH AND U. H. BRINKER	
Sites of Protonation in Cardiotonic Polyazaindolizines by NMR Spectroscopy	468
P. BARRACLOUGH, D. FIRMIN, J. C. LINDON, M. S. NOBBS, P. N. SANDERSON, S. SMITH AND J. M. GILLAM	
EPR Spectra in γ-Irradiated $\text{PPN}^+\text{HFeW}(\text{CO})_5^-$ Crystals	476
R. C. HYNES, J. J. SPRINGS, K. F. PRESTON AND A. J. WILLIAMS	
^1H and ^{13}C NMR Analyses of Amiodarone, Desethylamiodarone and Desoxoamiodarone	482
A. A. RIBEIRO AND G. L. JENDRASIAK	
^{133}Cs, ^1H Two-dimensional Heteronuclear Overhauser Effect Spectroscopy (HOESY): Structural Analysis of Organic Caesium Compounds by Detection of Short Cs,H Contacts	494
W. BAUER	
Application of Deuteriated Isotopomers in the Analysis of ^{13}C CP/MAS NMR Spectra of Some Azo Dyes	500
J. STRAKA, B. SCHNEIDER, A. LYCKA AND J. JIRMAN	

Short communications

- ¹³C CP-MAS NMR Spectra and Fluxional Behaviour of [M₂(ηHCCCCMe₂)(CO)₄(ηC₅H₅)₂]⁺[BF₄]⁻ (M = Mo, W) Complexes in the Solid State** 506
M. V. GALAKHOV, V. I. BAKHMUTOV AND I. V. BARINOV

- Direct Determination of Proton-Exchange Kinetics by 320-MHz Tritium NMR Spectroscopy** 509
R. E. DIXON, P. G. WILLIAMS, M. SALJOUGHIAN, M. A. LONG AND A. STREITWIESER

Reference Data

- ¹H and ¹³C NMR Spectra of Fifteen Substituted Isoquinolines** 513
J. T. NELSON AND R. DAVIS

- Carbon-13 NMR Study of 5-Triphenylphosphoranilydeneaminopyrazoles** 517
A. ARQUES, P. MOLINA, M. V. VINADER AND J. ELGUERO

- ¹⁷O NMR Study of Isomeric Monochloro- and Monohydroxy-benzaldehydes and Chlorinated Salicylaldehydes** 518
E. KOLEHMAINEN AND J. KNUUTINEN

NUMBER 6 JUNE 1991

- Multi-Dimensional NMR Experiments Using Selective Pulses** 527
H. KESSLER, S. MRONGA AND G. GEMMECKER

- ¹H and ¹³C NMR Studies of 1,8-Bis(dimethylamino)naphthalene Salts in Acetonitrile-*d*₃** 558
B. BRYCKI, B. BRZEZINSKI, E. GRECH, Z. MALARSKI AND L. SOBCZYK

- ¹³C NMR Spectra of the Models for the End-Group Analysis of Polybutadiene** 561
I. S. PODKORYTOV AND A. V. LUBNIN

- Natural Abundance Nitrogen-15 CP-MAS NMR Studies of Copper(I) Complexes** 566
S. KITAGAWA, M. MUNAKATA, K. DEGUCHI AND T. FUJITO

- Conformational Analysis of 5,6,7-Trisubstituted Flavones: ¹³C NMR and Molecular Mechanics Study** 569
R. R. BIEKOFKY, C. A. BUSCHI AND A. B. POMILIO

- Protonated XH Heteroatom (X = O, N, S,) Analysis in Oil Fractions from Morocco Oil-Shale Using ²⁹Si Multiple-Pulse NMR** 576
C. G. BEGUIN, C. BENNOUNA, H. BITAR, A. DAHBI AND L. LENA

- Assignment of Proton NMR Resonances and Conformational Analysis of [Lys⁸]-Vasopressin Homologues** 580
G. ZIEGER, F. ANDREAE AND H. STERK

- Transmission of Electronic Effects Through Cyclopropane. II—Comparative Modulation of ¹H Chemical Shifts by Aryloxy and Aryl Substituents in 2-(Donor)-1-(acceptor)cyclopropanes** 587
M. E. ALONSO AND S. V. PEKERAR

- NMR Lipid Profiles of Cells, Tissues and Body Fluids. I—1D and 2D Proton NMR of Lipids from Rat Liver** 594
M. CASU, G. J. ANDERSON, G. CHOI AND W. A. GIBBONS

- Applications of Two-Dimensional NMR in Spectral Assignments of the Cytotoxic Triterpene Sapon-aceolide B** 603
C. GERACI, M. PIATTELLI AND C. TRINGALI

- Conformational Study of Somatostatin Analogues in Methanol at Low Temperature** 607
P. M. F. VERHEYDEN, D. H. COY AND G. VAN BINST

- NMR Spectra and Stereochemistry of 5,5-Disubstituted-1,3-Dioxans** 613
T. A. CRABB, M. PORSSA AND N. F. ELMORE

Amended Heteronuclear Correlations by Multiple Quantum Evolution. Theoretical Aspects of an ABX Spin System	619
K. E. KOVER, Z. MADI AND GY. BATTA	
Solution and Powder X- and Q-Band ESR Spectra of the 1,3,5-Trithia-2,4,6-triazapentalenyl Radical	625
Y.-L. CHUNG, J. P. B. SANDALL, L. H. SUTCLIFFE, H. JOLY, K. F. PRESTON, R. JOHANN AND G. WOLMERSHAUSER	
<i>Reference Data</i>	
Proton and Carbon-13 NMR Spectra of Some 3,4-Fused Pyranocoumarins and Furocoumarins	631
A. PATRA, S. K. PANDA, K. C. MAJUMDAR, A. T. KHAN AND S. SAHA	
¹³C CP-MAS Solid-State NMR and Multinuclear Solution State Magnetic Resonance Spectra of Some Sulphur Amides and Carboxamides	635
A.-M. HAKKINEN AND P. A. RUOSTESUO	
¹³C Nuclear Magnetic Resonance Studies of Pyrazolo[<i>a</i>]-9(10<i>H</i>)-acridnones	638
G. BOYER, J. P. GALY, R. FAURE, J. ELGUERO AND J. BARBE	
¹H and ¹³C NMR Data for the Basic Naturally Occurring Isoxazolin-5-one Derivatives	641
A. DE BRUYN, G. VERHEGGE AND F. LAMBEIN	
NUMBER 7 JULY 1991	
Determination of the Relative Stereochemistry of 5α- and 5β-Diastereomers of [2α,3β,3$\alpha\alpha$]-Ethyl Hexahydro-2-(1,2,3,4-tetraacetoxybutyl)-5,6,6-trimethylpyrrolo[1,2-<i>b</i>]isoxazole-3-carboxylate	645
J. VASU, P. J. NADKARNI, G. K. TRIVEDI AND A. STEIGEL	
New β-Dihydroagarofuran Sesquiterpenoids from <i>Celastrus Paniculatus</i>	650
H. SANG, H. WANG, Y. TU AND Y. CHEN	
Structural Changes in the Complexation of Benzo-Crown Ethers—NOESY and Variable-Temperature ¹³C NMR Study	656
S. V. SANTHANA MARIAPPAN, L. GOMATHI AND S. SUBRAMANIAN	
Secondary Metabolites by Chemical Screening 12—¹³C NMR Studies of Elaiophyllin Derivatives	667
P. HAMMANN AND G. KRETZSCHMAR	
Carbon-13 NMR Spectral Investigations on Allenic Esters: Rationalization of Carbon-13 NMR Chemical Shifts and Relaxation Times (T₁)	671
R. P. GANDHI AND M. P. S. ISHAR	
Determination of Z and E Configurations in Trifluoromethylated Vinyl Compounds: ³J(CF) Coupling Constants as a Criterion for Configurational Assignments	675
J.-P. BEGUE, D. BONNET-DELPON, D. MESUREUR AND M. OUREVITCH	
Complexation of Potassium Cations by Tetraglyme and 18-Crown-6 as Evidenced by ³⁹K NMR Spectroscopy	679
J. GROBELNY, M. SOKOL AND Z. J. JEDLINSKI	
NMR Spectroscopic Properties of Heptakis(2,6-di-<i>O</i>-pentyl)-β-cyclodextrin: Two-dimensional NMR Spectra of a Key Intermediate in Preparing Chiral Stationary Phases for Enantioselective Capillary Gas Chromatography	681
W. MEIER-AUGENSTEIN, B. V. BURGER AND H. S. C. SPIES	
Synthesis and Steric Structure of Alicycle-Fused 1,3-Thiazine-β-lactams	687
P. SOHAR, J. SZABO, L. SIMON, G. S. TALPAS, E. SZUCS AND G. BERNATH	
NMR Study of Thermodynamic and Structural Properties of Molecular Complexes Formed by Metalloporphyrins and Aromatic Substrates	693
A. N. KITAIGORODSKI AND U. EDLUND	

High-Field Magnetic Resonance Studies of <i>tert</i>-Butanol in Liquid and Solid Phases D. W. AKSNES AND L. L. KIMTYS	698
NMR/NOE Elucidation of the Stereostructure of Cycloadducts of Acetonitrile Oxide with Norbornane/ene-Dihydro-oxazines P. SOHAR, G. STAJER, A. E. SZABO AND G. BERNATH	706
Metallaheteroborane Chemistry Part 8—NMR Study of Some Arsena- and Stibaboranes and of the Rhodadiarsenaboranes [3,3-(PPh₃)₂-3-(H)-<i>closo</i>-3,1,2-RhAs₂B₉H₉] and [3-(η^5-C₅Me₅)-<i>closo</i>-3,1,2-RhAs₂B₉H₉] X. L. R. FONTAINE, J. D. KENNEDY, M. McGRATH AND T. R. SPALDING	711
The Radical Anion of (<i>E</i>)-Azobenzene Revisited U. BUSER, C. H. ESS AND F. GERSON	721
Improved Sensitivity for the 2D Analogue of the 3D HOHAHA-COSY Experiment H. BIRCHER, C. MÜLLER AND P. BIGLER	726
ENDOR Study of the Intermolecular Interactions of Bis(<i>O,O'</i>-dialkyldithiophosphate)copper(II) with Diamagnetic Matrices V. I. ILIEV AND J. MACICEK	730
Dynamic Nuclear Magnetic Resonance of Zinc and Cadmium Complexes of 1,2-Propane-diaminetetraacetic Acid F. LI AND R. SONG	735
Assignments of the ¹³C and ¹H NMR Spectra of Azithromycin in CDCl₃ J. BARBER	740
<i>Reference Data</i> Nuclear Quadrupole Resonance in Chloromethylphenols R. S. KALATHIMATTAM, A. BAI AND J. UCHIL	744
¹H NMR Spectra of a Series of Disperse Azo Dyes L. A. FEDOROV, P. SAVARINO, V. I. DOSTOVALOVA, G. VISCARDI, R. CARPIGNANO AND E. BARNI	747
Carbon-13 NMR Signals of Some Substituted Indanones, Tetralones and Benzo-α-pyrones, β-Substituted β-Phenylpropionic Acids and Related Compounds A. PATRA AND S. K. MISRA	749
NUMBER 8 AUGUST 1991	
Applications of ¹H NMR Selective and Biselective Relaxation Times to Elucidate the Configurations and Conformations of Guinesines in Solution M. SUGIURA, T. SAI, M. ICHIMARU, A. KATO AND N. TAKAO	755
2-Fluoro-2-Phenylacetic Acid. 4—Configuration of its Esters with Substituted-Phenyl Alcohols by ¹⁹F NMR M. BARRELLE AND S. HAMMAN	759
Configuration and Conformation Derived from ¹H and ¹³C NMR Spectroscopy of a Series of Substituted Penta-1,3-dien-5-ols N. M. SERGEYEV, V. A. CHERTKOV, V. N. TOROCHESNIKOV, V. A. ROZNYATOVSKY, G. A. PANOSYAN, A. G. SHAKHATUNI AND A. KHRIMIAN	762
¹H and ¹³C NMR Studies on the Conformation of <i>E,Z</i>-Diastereomers of <i>N</i>-Desmethyl-<i>N,O</i>-Diacetyl-α-Metazocine (sp²-Hybridized Nitrogen Derivatives of a Benzomorphan Narcotic Analgesic) R. GLASER, M. A. BERNSTEIN AND A. BALAN	766
Additivity Scheme for ¹³C NMR Chemical Shifts in Triangulanes K. A. LUKIN, S. I. KOZHUSHKOV AND N. S. ZEFIROV	774

Carbon-13 NMR Relaxation Studies of Some Dicyclohexyl Compounds D. G. GILLIES, S. J. MATTHEWS AND L. H. SUTCLIFFE	777
Structure of the De-O-acetylated Glucuronoxylomannan from <i>Cryptococcus Neoformans</i> Serotype D, as Determined by 2D NMR Spectroscopy M. A. SKELTON, R. CHERNIAK, L. POPPE AND H. VAN HALBEEK	786
NMR Spectra and Stereochemistry of <i>N</i>-Acetyl and <i>N</i>-Benzoyl Derivatives of Solasodine A. V. PATEL, G. BLUNDEN AND T. A. CRABB	794
Stereochemistry of 3-Arylidene flavanones and Their Thio Analogues by the Use of $^3J(\text{CH})$ Couplings G. TOTH, A. SZOLLOSZ, A. LEVAI, G. OSZBACH, W. DIETRICH AND H. KUHN	801
Conformational Studies of Caprylolactam G. BORGEN	805
Monitoring Site-Specific Natural Hydrogen Isotope Fractionation Using a Novel Phosphorus-Containing Chiral Discriminating Reagent G. HAGELE, B. BOISNIERE, I. HELIE, C. RABILLER, G. J. MARTIN AND M. L. MARTIN	813
Carbon-13 NMR Relaxation Studies of Some Dicyclohexyl Compounds at High Pressure D. G. GILLIES, S. J. MATTHEWS AND L. H. SUTCLIFFE	823
Prediction of the Carbon-13 NMR Chemical Shifts of Polysubstituted Benzenes with Homogeneous Substituents V. I. DOSTOVALOVA, L. A. FEDOROV AND J. PAASIVIRTA	830
Conformational Analysis of Cembrenenol: Application of ^1H and ^{13}C NMR Spectroscopy and of Computational Methods P. BIGLER, H. R. BIRCHER, C. MULLER, P. R. GERBER AND K. GUBERNATOR	
^{13}C-Selective, ^1H-Detected 2D $\{^1\text{H}, ^{13}\text{C}\}$ Correlation Spectra of Oligosaccharides L. POPPE AND H. VAN HALBEEK	848
Reference Data ^1H and ^{13}C Chemical Shift Assignments of <i>para</i>-Substituted-Aryl 2-Acetamido-2-deoxy-β-D-glucopyranosides R. ROY, F. D. TROPPER AND A. J. WILLIAMS	852
^1H, ^{19}F and ^{13}C NMR Assignments of 5,7-Dihalogenated Kynurenic Acid Derivatives E. W. HUBER, D. M. STEMERICK, D. M. COUSINO AND B. L. HARRISON	859
NUMBER 9 SEPTEMBER 1991	
Coordination-Site Exchange and Solid-State ^{13}C NMR Studies of Bis(oxalato)dioxovanadate(V) Ion M.-H. LEE AND K. SCHAUMBURG	865
NMR and Conformational Studies of the Cyclobutane Ring Involved in the Bicyclo[4.2.0]octane System of a Tetracyclic Diterpene Structure D. D. K. MANH, M. FETIZON, C. PREVOST AND P. ROY	870
^1H, ^{13}C and ^{17}O NMR Study of Substituted Nitropyridines E. KOLEHMAINEN, K. LAIHIA, D. RASALA AND R. GAWINECKI	878
Structure and Conformation of the Hypermodified Purine Nucleoside Wyosine and its Isomers: A Comparison of Coupling Constants and Distance Geometry Solutions H. SIERZPUTOWSKA-GRACZ, R. H. GUENTHER, P. F. AGRIS, W. FOLKMAN AND B. GOLANKIEWICZ	885
^1H and ^{13}C NMR Study of 1-Substituted Isatins and Their Corresponding 3-(Dicyanomethylidene)-indol-2-ones M. S. MORALES-RIOS AND P. JOSEPH-NATHAN	893

NMR of Terminal Oxygen 6. ^{17}O NMR of the S-O 'Double Bond': Derivatives of Arylsulphinic and Arylsulphonic Acids	897
H. DAHN, V. VAN TOAN AND M.-N. UNG-TRUONG	
Influence of <i>gauche</i> Interactions on the Substituent Effects on Carbon-13 Chemical Shifts in Six-Membered Ring Compounds	904
K. P. RAJAN AND A. MANIMEKALAI	
Measurement of One-Bond Proton-Carbon Coupling Constants of Saccharides	912
S. UHRINOVA, D. UHRIN, T. LIPTAJ, J. BELLA, J. HIRSCH	
Inclusion Complexes Between β-Cyclodextrin and β-Benzyloxy-α-propionic Derivatives of Paramagnetic DOTA- and DTPA-Gd(III) Complexes	923
S. AIME, M. BOTTA, M. PANERO, M. GRANDI AND F. UGGERI	
Synthesis and Steric Structure of <i>cis</i>- and <i>trans</i>-Alicycle-Fused Dihydrothiazepines	928
P. SOHAR, K. UJSZASZY, J. SZABO, L. SIMON, G. S. TALPAS, L. FODOR AND G. BERNATH	
Conformational Features of Imipramine Hydrochloride in Aqueous Solution as Detected by ^1H NMR Relaxation Analysis	933
E. GAGGELLI, N. MARCHETTINI AND G. VALENSIN	
Assignment of the ^1H and ^{13}C NMR Spectra of the Quinolizidine Alkaloid Anagyrine and Determination of its Conformation	936
D. S. RYCROFT, D. J. ROBINS AND I. H. SADLER	
A Simple Procedure for the Determination of the Quadrupole Interaction Parameters and Isotropic Chemical Shifts from Magic-Angle Spinning NMR Spectra of Half-Integer Spin Nuclei in Solids	941
G. ENGELHARDT AND H. KOLLER	
Intermolecular and Intramolecular Effects on the ^1H and ^{13}C Shielding in Some Gaseous Hydrocarbons at Various Temperatures—Experimental Results	946
B. BENNETT AND W. T. RAYNES	
Intermolecular and Intramolecular Effects on the ^1H and ^{13}C Shielding in Some Gaseous Hydrocarbons at Various Temperatures—Theory and Discussion	955
W. T. RAYNES AND B. BENNETT	
<i>Reference Data</i>	
^1H and ^{13}C NMR Spectra of (Z)-C-Aryl <i>N</i>-<i>tert</i>-Butyl Nitrones	962
R. W. MURRAY AND M. SINGH	
^{13}C NMR Analysis of Specifically Labeled [^{13}C]Azobenzenes	964
H. J. SHINE AND W. SUBOTKOWSKI	
^1H and ^{13}C NMR Study of Some (<i>E</i>)-3'- and 4'-Substituted Stilben-4-ols	966
T. H. FISHER AND T. P. SCHULTZ	
Two Dimensional Nuclear Magnetic Resonance of Sesquiterpenes. 4—Application to Complete Assignment of ^1H and ^{13}C NMR Spectra of Some Aromadendrane Derivatives	969
R. FAURE, A. R. P. RAMANOELINA, O. RAKOTONIRAINY, J.-P. BIANCHINI AND E. M. GAYDOU	
NUMBER 10 OCTOBER 1991	
Quantitative Empirical Treatment of ^{13}C NMR Chemical Shifts of Aliphatic Halides	975
I. SURYANARAYANA AND J. GASTEIGER	
NMR Spectroscopy of Hexa- and Octahydropyrazino[1',2':1,2]pyrido[3,4-<i>b</i>]indoles and 15-Azayohimbanes	985
N. VALLS, V. M. SEGARRA AND J. BONJOCH	

NMR Investigations of Forskolin. Complete Assignment of Proton and Carbon NMR Spectra and Conformational Analysis	993
H. KOGLER AND H.-W. FEHLHABER	
Stereochemistry of Crown Ethers IV—$^1\text{H}/^{13}\text{C}$ NMR Spectroscopic Study of the Solution Structure of Some Bis(benzocrown ethers)	999
S. STOSS, E. KLEINPETER AND H.-J. HOLDT	
Chemical Modifications of Phenoxy Resin. Synthesis and ^1H NMR Study of Model Compounds	1005
M. J. FDEZ-BERRIDI, J. J. IRUIN, A. M. DE ILARDUYA, A. R. DE GAUNA AND M. VALERO	
^{13}C, ^6Li and ^7Li NMR T_1 and $T_{1\rho}$ Study of Ion-Pair Dynamics and Structure of Lithium Fluorenide	1012
I. SETHSON, B. ELIASSON AND U. EDLUND	
Assignment of the ^1H, ^{13}C and ^{15}N Resonances in Cyclodextrin Nitrates by 2D NMR and the Determination of the Regioselectivity of the Hydroxylamine-Induced Denitration Reactions	1018
S. BULUSU, T. AXENROD, B. LIANG, Y. HE AND L. YUAN	
The Pyrimidine-iodine Interaction; a Study of Complex Formation by NMR of Oriented Molecules	1024
N. SURYAPRAKASH, R. UGOLINI AND P. DIEHL	
The (Z)/(E)-Configurational Analysis of Isolated Double Bonds in Pheromones and Unsaturated Fatty Acids. The Use of 1D and 2D J-Resolved ^1H CW Off-Resonance Techniques in ^{13}C NMR Spectroscopy	1028
R. RADEGLIA, H. POLESCHNER AND M. HEYDENREICH	
^1H NMR Determination of the Ionization Constant of a Carboxylic Acid Group of a Haem Protein in Mixed Aqueous-Organic Solvents Using the Super WEFT Sequence	1036
S. E. J. RIGBY, A. M. BURCH AND G. R. MOORE	
Compounds with Bridgehead Nitrogen 66—NMR Spectra and Stereochemistry of Derivatives of 1,2,3,4,6,7,12,12b-Octahydropyrimido[1',6': 1,2]pyrido[3,4-b]indol-2-one and of 1,3,4,6,7,11b-Hexahydropyrimido[6,1-a]isoquinolin-2-one	1040
T. A. CRABB AND A. V. PATEL	
One- and Two-dimensional Multinuclear Magnetic Resonance Study of Azaphospholes; Sign Determination of $J(^{15}\text{N}, ^1\text{H})$, $J(^{31}\text{P}, ^1\text{H})$, $J(^{31}\text{P}, ^{13}\text{C})$, $J(^{31}\text{P}, ^{15}\text{N})$; Application of Hahn-Echo Extended Pulse Sequences	1045
B. WRACKMEYER, E. KUPCE AND A. SCHMIDPETER	
Solution Phase ^1H and ^{13}C-NMR Studies of Some 1,4,8,11,15,18,22,25-Octa-alkylphthalocyanines	1053
M. J. COOK, S. J. CRACKNELL, G. R. MOORE, M. J. OSBORNE AND D. J. WILLIAMSON	
Study of Fluorinated Blowing Agents in Polyurethane Foams by Fast Magic-Angle Spinning Fluorine-19 NMR Spectroscopy	1061
P. JACKSON AND R. H. CARR	
<i>Short communication</i>	
Homonuclear Scalar ^6Li, ^7Li Spin-Spin Coupling: First Direct Observation and Detection via the ^6Li, ^7Li INADEQUATE Experiment	1065
O. EPPERS, H. GUNTHER, K.-D. KLEIN AND A. MAERCKER	
<i>Reference Data</i>	
Complete Assignment of the ^1H and ^{13}C NMR Spectra of Norbornene Derivatives	1068
J. FISHER AND M. J. GRADWELL	
^1H NMR Spectroscopy of Cycloadducts of 1,5- and 1,6-Diazaphenanthrene Phenacylides	1070
W. SLIWA, B. BACHOWSKA AND A. POSTAWKA	
Carbon-13 NMR Studies of Some Di- and Tetra-substituted Anthracene-9,10-dione Derivatives Related to the Anticancer Drug Mitoxantrone	1072
J. BLANZ, K. MEWES, M. BETH, K.-P. ZELLER AND G. EHNINGER	

Guest Editor's Foreword	S1
P. PREGOSIN	
Editorial	S2
P. M. E. LEWIS	
Liquid- and Solid-State (CP-MAS) Multinuclear Magnetic Resonance Study of Some 2,5-Dihydro-1,2,5-oxoniastannaborates—Carbon–Carbon Coupling Constants, $^1J(^{13}\text{C}=\text{C})$, in Organometallic-Substituted Alkenes	S3
B. WRACKMEYER, K. WAGNER, A. SEBALD, L. H. MERWIN AND R. BOESE	
Platinum-Phosphine Cluster Chemistry: New Potentials from ^{195}Pt-$^{31}\text{P}\{1\text{H}\}$ Triple-Resonance Spectroscopy	S11
H. RUEGGER AND D. MOSKAU	
EPR Investigation of the Second Sphere Coordination of $[\text{Cr}(\text{CN})_5(\text{NO})]^{3-}$ with Protonated Polyethyleneimine	S16
G. V. R. CHANDRAMOULI, C. W. SCHLAPFER AND A. VON ZELEWSKY	
Structure of $[\text{RhH}_2(\text{PPh}_3)_2(\text{bipy})]\text{Cl}$ (bipy = 2,2'-bipyridyl) from Multinuclear NMR Studies	S21
B. T. HEATON, C. JACOB, W. HEGGIE, P. R. PAGE AND I. VILLAX	
^{119}Sn NMR Study of Organotin Compounds Having Intramolecular Sn-N Coordination	S25
J. T. B. H. JASTRZEBSKI, D. M. GROVE, J. BOERSMA, G. VAN KOTEN AND J.-M. ERNSTING	
^{59}Co and ^{99}Ru NMR Investigation of Heterometallic Carbonyl Clusters. Reactivity of $[\text{MCo}_3(\text{CO})_{12}]^-$ (M = Fe, Ru) Towards NO^+; Formation of $\text{RuCo}_3(\text{CO})_{11}(\text{NO})$ and $\text{FeCo}_2(\mu_3\text{-NH})(\text{CO})_9$	S31
P. BRAUNSTEIN, J. ROSE, P. GRANGER AND T. RICHERT	
Characterization of Partially Deuteriated Transition Metal Polyhydrido Complexes by Heteronuclear 2D NMR Techniques	S38
D. NANZ, W. VON PHILIPSBORN, U. E. BUCHER AND L. M. VENANZI	
Variable-Pressure Oxygen-17 NMR Study of Water Exchange on Hexaaqua Rhodium(III)	S45
G. LAURENCZY, I. RAPAPORT, D. ZBINDEN AND A. E. MERBACH	
Multinuclear MR Studies of Platinum(II) Nitroimidazole Complexes: ^{15}N-Labelling and Reactions with Nucleotides	S52
F. M. MACDONALD AND P. J. SADLER	
Multinuclear High-Resolution Solid-State Magnetic Resonance Studies of Some Platinum(II) Complexes with Phosphorus-Containing Ligands	S60
R. K. HARRIS, I. J. McNAUGHT, P. REAMS AND K. J. PACKER	
Solution Structure of $[(\text{Triphos}^*)\text{RhH}_2(\text{AuPPh}_3)_3][\text{PF}_6]_2$ Deduced by One- and Two-Dimensional $^1\text{H}\{^{31}\text{P}\}$ and $^1\text{H}\{^{103}\text{Rh}\}$ Double-Resonance Techniques	S73
D. IMHOF, H. RUEGGER, L. M. VENANZI AND T. R. WARD	
^{15}N NMR Study of the Linkage Isomerism of Pentaammine(glycinato)rhodium(III)	S80
T. G. APPLETON AND M. R. COX	
Water Signal Suppression by T_2-Relaxation Enhancement Promoted by Dy(III) Complexes	S85
S. AIME, M. BOTTA, L. BARBERO, F. UGGERI AND F. FEDELI	
^1H NMR $T_1(\text{min})$ Data and Structure in a Series of Rhenium Polyhydride Complexes and the Contribution of M–H Dipole–Dipole Relaxation	S89
X.-L. LUO, J. A. K. HOWARD AND R. H. CRABTREE	
Comparison of Solid-State and Solution Structures of $(\text{R}_3\text{P})_2\text{CdX}_2$, $(\text{Et}_3\text{P})_2\text{Cd}_2\text{X}_4$ and $(\text{Bu}_3\text{P})_3\text{Cd}_2\text{X}_4$ Complexes	S94
J. M. KESSLER, J. H. REEDER, R. VAC, C. YEUNG, J. H. NELSON, J. S. FRYE AND N. W. ALCOCK	

**M C Interactions and 2D NOESY. Pd(II) and Pt(II) Cyclometallation Chemistry**

P. S. PREGOSIN AND F. WOMBACHER

S106

Inverse Two-Dimensional ^{31}P , $^{103}\text{Rh}\{^1\text{H}\}$ NMR of Cationic Rhodium(I) Complexes Containing Chelating Diphosphines

J. M. ERNSTING, C. J. ELSEVIER, W. G. J. DE LANGE AND K. TIMMER

S118

 ^1H NMR Studies of Human Urine: Urinary Elimination of the Anticancer Drug Carboplatin

J. D. RANFORD, P. J. SADLER, K. BALMANNO AND D. R. NEWELL

S125

NUMBER 11 NOVEMBER 1991

Isolation and Structural Elucidation of Griffithine by 1D and 2D NMR Techniques

A.-UR-RAHMAN, A. PERVIN, M. FEROZ, S. PERVEEN, M. I. CHOUDHARY AND N. HASAN

1077

 ^1H and ^{13}C NMR Characterization of a New Chiral Porphyrin, *meso*-Tetra($\alpha,\beta,\alpha,\beta$ -*o*-camphylamidophenyl)porphyrin, and its Rhodium(III) Complex

S. LICOCIA, M. PACI, P. TAGLIATESTA, R. PAOLESSE, S. ANTONAROLI AND T. BOSCHI

1084

Studies of Two-Dimensional ^{113}Cd - ^1H Overhauser Effect Spectra

X. YAN, J. FAN, X. XU, D. WANG, G. NIE AND B. QIAN

1092

 ^1H NMR Study of Casein Phosphopeptide (1-25): Assignment and Conformation

S. TSUDA, R. NIKI, T. KUWATA, I. TANAKA AND K. HIKICHI

1097

NMR Evidence for an $\text{NH}^+ \cdots \text{OC}$ Intramolecular Hydrogen Bond in 2-Alkyl-3-morpholinopropiophenones—Structure of a New Elevated High Density Lipoprotein Agent in Solution

N. COTELLE AND P. COTELLE

1103

 ^1H , ^{13}C and ^{17}O NMR Study of Aromatic Ring-substituted Monochloro- and Monobromo-(*E*)-3-phenylpropenals

E. KOLEHMAINEN, K. LAIHIA AND P. MANTTARI

1109

 ^{13}C NMR Spectra of 1-Pyrroline 1-Oxides, 2*H*-Pyrrole 1-Oxides and Related Compounds

D. ST C. BLACK AND R. J. STRAUCH

1114

Characterization of Methyl Derivatives of Cyclopentadiene Monomer and Dimer by ^{13}C NMR Spectroscopy

T. LAURENS, D. NICOLE, P. RUBINI, J. C. LAUER, M. MATLENGIEWICZ AND N. HENZEL

1119

Structural Characterization of (\pm)-3-Aryl-1-azabicyclo[2.2.2]octan-3-ols by Two-Dimensional NMR Spectroscopy and X-Ray Crystallography. I.

M. S. ARIAS-PEREZ, A. COSME, E. GALVEZ, F. FLORENCIO, I. FONSECA AND J. SANZ

1130

Synthesis and ^1H , ^{13}C and ^{31}P NMR Studies of 2,10-Dichloro-6-aryloxy-12*H*-dibenzo[*d,g*][1,3,2]-dioxaphosphocin 6-Oxides

C. D. REDDY, R. S. N. REDDY, C. N. RAJU, M. ELMASRI, K. D. BERLIN AND S. SUBRAMANIAN

1140

Studies of Tautomerism and Protonation in 2-Aryl-1*H*-imidazo[1,2-*a*]imidazole Derivatives Using ^1H and ^{13}C NMR

M. LIU, R. D. FARRANT, R. C. GLEN, J. C. LINDON, P. BARRACLOUGH AND S. SMITH

1147

Proton-Coupled Carbon-13 NMR Spectra of Butadienes

R. K. HARRIS, S. NG AND A. CONNELLY

1152

Reference Data **^{13}C and ^{195}Pt NMR of *para*-substituted *N,N*-Dialkyl-*N'*-benzoylthioureas and Their *cis*-[ML_2] Complexes, $\text{M} = \text{Pd(II)}$ and Pt(II)**

K. R. KOCH AND M. C. MATOETO

1158

One-Bond ^{13}C - ^{13}C Spin-Spin Coupling in Cubanes

T. AXENROD, B. LIANG, A. BASHIR-HASHEMI AND P. R. DAVE

1161

Gas to Solution Shifts of ^{129}Xe and ^{13}C of Methane are Linearly Related P. DIEHL, R. UGOLINI, N. SURYAPRAKASH AND J. JOKISAARI	1163
Complete ^1H and ^{13}C NMR Assignments of Ruthenium (II) Complexes with Two New 2-Pyridylquinoline Ligands P. FINOCCHIARO, A. MAMO AND C. TRINGALI	1165
Magnetic Moment Determination of Micro-Sized Solid Samples by Proton Magnetic Resonance Spectroscopy A. FURUHASHI, I. ONO AND A. YAMASAKI	1175
Two-dimensional NMR and ^{13}C Spin-Lattice Relaxation Study of Methyl Fluorene-3-carboxylate D. PISSAS, P. DAIS AND F. SAURIOL	1181
Yttrium(III) Oxoisopropoxide: a New Synthetic Route and Reinvestigation of the ^1H, ^{13}C and ^{89}Y NMR of $\text{Y}_3(\mu_5\text{-O})(\mu_3\text{-O}^i\text{Pr})_4(\mu_2\text{-O}^i\text{Pr})_4(\text{O}^i\text{Pr})_5$ C. J. PAGE, S. K. SUR, M. C. LONERGAN AND G. K. PARASHAR	1191
Structure Elucidation of the Oligosaccharide Calonyctin A by the Concerted Use of 1D and 2D NMR Techniques G. SERRATRICE, R. PASTOR AND Y.-C. HU	1196
^{39}K NMR Study of Potassium Naphthalenide Solutions M. SOKOL, J. GROBELNY AND M. KOWALCZUK	1204
Magnitudes and Relative Sign of $J(^{119}\text{Sn}, ^{13}\text{C})$ and $J(^{119}\text{Sn}, \text{H})$ Coupling Constants in Some Organotin(IV) Compounds Using 2D NMR Methods A. LYCKA, J. JIRMAN AND J. HOLECEK	1212
Large CC Spin-Spin Coupling Constants Across Double Bonds. Validity of the Multiplicative Approach K. KAMIENSKA-TRELA, Z. BIEDRZYCKA AND A. DABROWSKI	1216
Multi-frequency, Variable-temperature and High-pressure Study of Carbon-13 Spin-Lattice Relaxation in Tetraoctyltin D. G. GILLIES, S. J. MATTHEWS AND L. H. SUTCLIFFE	1221
<i>Reference Data</i> ^{13}C NMR Spectra of some 3-Substituted Cycloalkanespirohydantoins and their 4-Hydroxy Derivatives C. PEDREGAL, M. ESPADA, J. ALBERT, E. CRUZ AND A. VIRGILI	1226
^{13}C NMR Chemical Shifts of ω-Haloalkyl-trimethylsilyl and -tert-butyldimethylsilyl Ethers M. POLESCHNER AND M. HEYDENREICH	1231

